

## AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

SF30, Page 1 of 3 Pages

OMB No. 0690-0008

Expiration Date: November 2000

1. CONTRACT ID CODE

2. AMENDMENT/MODIFICATION NO.

**01**

3. EFFECTIVE DATE

**See block 16c**

4. REQUISITION/PURCHASE REQ. NO.

5. PROJECT NO. (If applicable)

6. ISSUED BY CODE

U.S. Department of Commerce/NOAA  
**Acquisition Management Division**  
**Contract Administration Branch**  
**1305 East West Highway, Sta. 7604**  
**Silver Spring, MD 20910-3281**

7. ADMINISTERED BY Code

8. NAME AND ADDRESS OF CONTRACTOR (No.  
Street, County, State and ZIP Code)☒ 9A. AMENDMENT OF SOLICITATION NO.**NOAA 2002-1**

9B. DATED (See Item 11)

**October 2001**☐ 10A. MOD. OF CONTRACT/ORDER NO.

Code:

☐ 10B. DATED (See Item 13)

FACILITY CODE:

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended. Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

EXCEPTION TO STANDARD FORM 30  
APPROVED BY GSA/IRMS 9-87

STANDARD FORM 30 (REV 10-83)  
FAR (48 CFR) 53.243

**SF30, Page 2 of 3 Pages**

## AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES

THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) \_\_\_\_\_ THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT/ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)  
TASK ORDER - 52.216-18 ORDERING (APR 1984)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return three ( ) copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible).

See page 3 Continuation

NOTE: DATE AND TIME FOR RECEIPT OF OFFERS REMAINS UNCHANGED

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remain unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER  
(Type or print)

16A. NAME AND TITLE OF CONTRACTING  
OFFICER (Type or print)

**Diane C. Husereau**  
**Contracting Officer**

15B. CONTRACTOR/OFFEROR

16B. UNITED STATES OF AMERICA

\_\_\_\_\_  
(Signature of person  
authorized to sign)

\_\_\_\_\_  
(Signature of Contracting Officer)

15C. DATE SIGNED

16C. DATE SIGNED

EXCEPTION TO STANDARD FORM 30

STANDARD FORM 30 (REV 10-83)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

---

**BLOCK 14 CONT'D**

The purpose of this amendment is to further clarify Section 8.0 Research Topics, Subtopic 8.2.2R: Measuring Depth Profiles of Scattering in the Ocean (p. 27). The following is hereby provided.

Subtopic 8.2.2R Measuring the Depth Profiles of Scattering in the Ocean

Because of inquiries concerning this subtopic, NOAA is providing additional information to assist all prospective proposers.

NOAA seeks to further develop the existing data acquisition system for its Fish Lidar system. This system detects the presence of schools of fish (individual fish sizes as small as several inches), up to a depth of 50m. The current acquisition system uses an eight bit 1GS/S digitizer board with a logarithmic amplifier front end, for extended dynamic range. The overall system bandwidth is DC-100 Mhz.

NOAA has searched but not found an off the shelf, single-board solution to provide the required bandwidth, sampling rate, and dynamic range required. While there are suitable replacements available for the A/D converter board, NOAA has not been able to find a suitable replacement for the logarithmic amplifier.

The specifications for the current Log Amplifier are as follows:

1. 50 ohm input impedance
2. Input Dynamic Range, -200 microvolts to -2V
3. Bandwidth, DC - 100MHz
4. Risetime, 3nS
5. Falltime, 20dB down in 5nS  
40dB down in 20nS  
60dB down in 40nS
6. Output Scale factor, 6.0mV/dB
7. Output Voltage -0.5 V into 50 ohms with -2V input
8. Polarity, Non-inverting.
9. Linearity, +\_0.5dB
10. Operating temperature, 0-65 degrees C.

NOAA has examined three different methods for solving the problem:

1. Modulating the return signal. Modulate the detector output and use a demodulating logarithmic amplifier to retain the DC - 100 MHz bandwidth.
2. Multiple data acquisition cards with different gains. There are problems with amplifier saturation and gain differences between boards.
3. Log Amp into an A/D board. This is the system currently in use.

The current data acquisition system incorporates a PC running the QNX 4.5 operating system with the A/D board using the ISA bus. It is desired that the solution take into account the operating system and use the PCI bus instead. Also The DC-100Mhz bandwidth is a minimum.